

Connecting Parasite-Infected Crab Data to Shorebird Mortality during El Niño Seasons

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Pacific mole crabs (*Emerita analoga*) are one of the most important and abundant invertebrates in sandy beach environments. Consequently, they are a common food source for shorebirds and sea otters. Since the mole crab serves as the primary intermediate host for acanthocephalans parasites, they have been linked to a number of mortality events. Studies suggest that parasite development and transmission may be strongly effected by weather patterns. LiMPETs, a citizen science program, has collected data on the prevalence of infected crab along the California Coast. By segregating this data into El Niño/La Niña seasons, we use a differential equation model help to answer questions concerning weather effects on shorebird mortality.